

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A handpiece for non-invasively treating tissue using RF energy, comprising:

a handpiece assembly including a handpiece housing ~~and a cooling fluidic medium valve member~~; and

an electrode assembly coupled to the handpiece housing, the electrode assembly including a least one RF electrode with a dielectric portion configured to contact the tissue and a conductive portion disposed on the dielectric portion, that is the RF electrode adapted to deliver RF energy to the tissue, and the dielectric portion and the conductive portion being arranged such that the RF energy is capacitively coupled to a skin surface when at least a portion of the RF electrode is in contact with the skin surface from the conductive portion for delivery into the tissue by transmission through the dielectric portion.

2. (Currently Amended) The handpiece of claim [[1]] 113, further comprising:

a fluid delivery member coupled to the ~~cooling fluidic medium~~ valve member, wherein the fluid delivery member is configured to provide an atomizing delivery of [[a]] the cooling fluidic medium to the RF electrode.

3. (Original) The handpiece of claim 2, wherein the fluid delivery member is positioned in the handpiece housing.
4. (Original) The handpiece of claim 2, wherein the fluid delivery member is positioned in the electrode assembly.
5. (Original) The handpiece of claim 2, wherein the fluid delivery member includes a nozzle.
6. (Currently Amended) The handpiece of claim 2, wherein the fluid delivery member is configured to deliver a controllable amount of the cooling fluidic medium to the RF electrode.
7. (Original) The handpiece of claim 2, wherein the fluid delivery member is configured to controllably deliver the cooling fluidic medium to a back surface of the RF electrode.
8. (Currently Amended) The handpiece of claim 2, wherein the fluid delivery member is configured to controllably deliver [[fluid]] the cooling fluidic medium to a backside of the RF electrode to evaporatively cool the RF electrode and conductively cool a skin surface in contact with the front side of the RF electrode.
9. (Currently Amended) The handpiece of claim 2, wherein the fluid delivery member is configured to controllably deliver [[a]] the cooling fluidic medium to a back surface of the RF electrode at substantially any orientation of the front surface of the RF electrode relative to a direction of gravity.

10. (Currently Amended) The handpiece of claim 1, wherein the electrode assembly is sufficiently sealed to minimize flow of [[a]] the cooling fluidic medium from a back surface of the RF electrode to a skin surface in contact with a front surface of the RF electrode.

11. (Original) The handpiece of claim 1, wherein the electrode assembly includes a vent.

12. (Currently Amended) The handpiece of claim [[1]] 113, wherein the cooling fluidic medium valve member is configured to provide a pulsed delivery of [[a]] the cooling fluidic medium.

13. (Currently Amended) The handpiece of claim [[1]] 113, wherein the cooling fluidic medium valve member includes a solenoid valve.

14. (Cancelled)

15. (Currently Amended) The handpiece of claim [[14]] 1, wherein the conductive portion includes metal.

16. (Currently Amended) The handpiece of claim [[14]] 1, wherein the conductive portion includes copper.

17. (Currently Amended) The handpiece of claim [[14]] 1, wherein the dielectric portion layer includes polyimide.

18. (Currently Amended) The handpiece of claim [[14]] 1, wherein the RF electrode includes a copper polyimide composite material.
19. (Original) The handpiece of claim 1, further comprising:
leads coupled to the RF electrode.
20. (Currently Amended) The handpiece of claim 1, wherein the ~~RF electrode includes~~ conductive portion further comprises a portion of a flex circuit.
21. (Original) The handpiece of claim 20, wherein the flex circuit is configured to isolate flow of a cooling fluidic medium from a back surface of the RF electrode to a front surface of the RF electrode.
22. (Original) The handpiece of claim 20, wherein the flex circuit is configured to create a reservoir for a cooling fluidic medium that gathers at a back surface of the RF electrode.
23. (Original) The handpiece of claim 20, wherein the flex circuit includes trace components.
24. (Original) The handpiece of claim 20, wherein the flex circuit include a force sensor coupled to the flex circuit.
25. (Original) The handpiece of claim 20, wherein the flex circuit includes a thermal sensor.

26. (Currently Amended) The handpiece of claim 20, wherein the flex circuit ~~includes a further comprises the dielectric that forms a portion of the RF electrode portion.~~
27. (Original) The handpiece of claim 1, further comprising:
a force sensor coupled to the RF electrode.
28. (Original) The handpiece of claim 27, wherein the force sensor is configured to detect an amount of force applied by the RF electrode against a surface.
29. (Original) The handpiece of claim 27, wherein the force sensor is configured to zero out gravity effects of the weight of the electrode assembly.
30. (Original) The handpiece of claim 27, wherein the force sensor is configured to zero out gravity effects of the weight of the electrode assembly in any orientation of a front surface of the RF electrode relative to a direction of gravity.
31. (Original) The handpiece of claim 27, wherein the force sensor is configured to provide an indication of RF electrode contact with a skin surface.
32. (Original) The handpiece of claim 27, wherein the force sensor is configured to provide a signal indicating that a force applied by the RF electrode to a contacted skin surface is below a minimum threshold.

33. (Original) The handpiece of claim 27, wherein the force sensor is configured to provide a signal indicating that a force applied by the RF electrode to a contacted skin surface is above a maximum threshold.

34. (Original) The handpiece of claim 27, further comprising:
a tare button coupled to the force sensor.

35. (Original) The handpiece of claim 1, wherein the RF electrode is spring loaded.

36. (Original) The handpiece of claim 35, wherein the spring is pre-loaded.

37. (Original) The handpiece of claim 35, wherein the spring is configured to bias the RF electrode in a direction toward the handpiece housing.

38. (Original) The handpiece of claim 1, further comprising:
a shroud coupled to the handpiece.

39. (Cancelled)

40. (Original) The handpiece of claim 1, wherein the RF electrode includes a conductive portion with a dielectric positioned around at least a portion of a periphery of the conductive portion.

41. (Original) The handpiece of claim 1, wherein the RF electrode includes a conductive portion with a dielectric positioned around an entirety of a periphery of the conductive portion.
42. (Currently Amended) The handpiece of claim [[1]] 113, wherein the electrode assembly includes a ~~cooling fluidic medium~~ channel [[with]] coupled with the valve member for delivery of the cooling fluidic medium, the channel having an inlet and an outlet.
43. (Currently Amended) The handpiece of claim 42, wherein the outlet of the ~~cooling fluidic medium~~ channel has a smaller cross-sectional area than a cross-sectional area of the inlet.
44. (Original) The handpiece of claim 1, wherein the electrode assembly is moveable within at least a portion of the handpiece housing.
45. (Original) The handpiece of claim 1, wherein the electrode assembly is slideably moveable within at least a portion of the handpiece housing.
46. (Original) The handpiece of claim 1, wherein the electrode assembly is rotatably moveable relative to the handpiece housing.
47. (Original) The handpiece of claim 1, wherein the RF electrode is rotatably positioned in the electrode assembly.

48. (Original) The handpiece of claim 1, wherein the electrode assembly is coupled to the handpiece housing in a stationary position.

49-111. (Canceled)

112. (New) The handpiece of claim 1, wherein the electrode assembly is coupled detachably to the handpiece housing.

113. (New) The handpiece of claim 1, wherein the handpiece assembly further includes a valve member adapted to control delivery of a cooling fluidic medium that cools the electrode assembly.

114. (New) A handpiece for non-invasively treating tissue using RF energy, comprising:
a handpiece assembly including a handpiece housing; and
an electrode assembly coupled to the handpiece housing, the electrode assembly including a thin and flexible flex circuit, the flex circuit including a dielectric layer and a conductive RF electrode layer disposed on the dielectric layer, and at least a portion of the RF electrode layer being capacitively coupled to the tissue when at least a portion of the flex circuit is in contact with a skin surface.

115. (New) The handpiece of claim 114, wherein the flex circuit is configured to isolate flow of a cooling fluidic medium from a back surface of the RF electrode to a front surface of the RF electrode.

116. (New) The handpiece of claim 114, wherein the flex circuit is configured to create a reservoir for a cooling fluidic medium that gathers at a back surface of the RF electrode.

117. (New) The handpiece of claim 114, wherein the flex circuit includes trace components.

118. (New) The handpiece of claim 114, wherein the flex circuit include a force sensor coupled to the flex circuit.

119. (New) The handpiece of claim 114, wherein the flex circuit includes a thermal sensor.

120. (New) The handpiece of claim 114, wherein the flex circuit includes a dielectric portion that contacts the skin surface.

121. (New) The handpiece of claim 114, wherein the handpiece assembly further includes a valve member adapted to control delivery of a cooling fluidic medium that cools the electrode assembly.

122. (New) The handpiece of claim 114, wherein the electrode assembly is coupled detachably to the handpiece housing.